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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/925,613 | 08/09/2001 | Attila Szepesvary | 54948-315939 | 2976 |
| 23342 | 7590 | 03/31/2006 | | |
| KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101 | | | EXAMINER RUTTEN, JAMES D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2192 | |

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/925,613 | SZEPESVARY ET AL. | |
| | Examiner | Art Unit | |
| | J. Derek Rutten | 2192 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/6/05 has been entered, wherein claims 1, 7, 10, 11, 13, 19, and 25 have been amended and claim 15 has been canceled. Claims 1-13 and 16-25 remain pending and have been fully considered by the examiner.

Response to Arguments

2. On page 7 of the amendment filed 9/6/05, applicant essentially argues that the Jennings reference does not disclose "receiving a predefined grammar; and automatically generating a parser computer program based on the predefined grammar using an automated parser generator tool." This argument is representative of further presented arguments, and is convincing. Therefore, the rejection is withdrawn. However, a new rejection is made in view of "Compilers: Principles, Techniques, and Tools" by Aho et al.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-13 and 16-25 are rejected under 35 U.S.C. 101 because the claimed invention lacks concreteness and clarity. Claim 1 is directed to a method to identifying user interface objects; however, the claim never actually identifies a UI since the “parser computer program” is merely “configured for” identification, and never actually performs any scanning, token generation, parsing, or UI identification. Such a claim should positively recite the acts of scanning, token generation, parsing, UI identification, etc., in order to be considered statutory. Claims 2-13 and 16-18 are dependent upon claim 1 but do not make up for the deficiencies of the parent claim and are likewise rejected. Claim 1 is representative of the limitations found in claim 19, and is likewise rejected. Claims 20-25 are dependent upon claim 19 but do not make up for the deficiencies of the parent claim and are likewise rejected.
5. Claims 19-25 are rejected under 35 U.S.C. 101 because the claimed invention is not tangible. Claim 19 is drawn to a system for identifying user interface objects. However, none of the claimed limitations *necessarily* require any type of hardware, and are thus interpreted as representing a purely abstract system of software, per se. Since software is simply an abstraction of a system, it is not tangible. However, if such a system were claimed as including elements that are *necessarily* implemented in a system requiring hardware, then it would be statutory. Claims 20-25 are dependent upon claim 19 but do not make up for the deficiencies of the parent claim and are likewise rejected.

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-13 and 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings, US Patent No. 6,717,593 in view of “Compilers: Principles, Techniques, and Tools” by Aho et al. (hereinafter “Aho”).

As Per Claim 1, Jennings teaches that the interactor parses the description documents of an interface into elements and reflects them in the object model to form an instance representing the interface, downloads the objects corresponding to the reflected elements registers their interfaces in the object model instance to make them accessible by the elements, and invokes execution of each downloaded object with the corresponding element to render the element. (E.g. see Abstract and associated text). In that Jennings discloses the method that covering the steps of a method for identifying user interface (UI) objects in a markup-language stream, the method comprising the steps of:

“receiving a predefined grammar;” (See column 8 lines 53-58 for a discussion of an XML parser which parses a document into XML elements. Note that a predefined

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grammar is inherent in such parsing, otherwise the parser would not know be able to recognize an XML element).

“...a parser computer program based on the predefined grammar...” (E.g. see FIG. 7 step 401 and associated text, e.g. col. 7:35-65);

“the parser computer program configured for:

scanning any of (i) the markup-language stream and (ii) a corresponding document object model (DOM) to generate tokens;” (E.g. see FIG. 16 and associated text, e.g. see col. 7:35-52).

“parsing the tokens to identify one or more UI objects” (E.g. see col. 7:42-44).

Jennings des not expressly disclose *automatically generating* a parser computer program based on the predefined grammar using an automated-parser generator tool. However, in an analogous environment, Aho teaches the well known method of using a parser generator tool to automatically generate a parser based on a predefined grammar. See Section 4.9, especially Fig. 4.55:

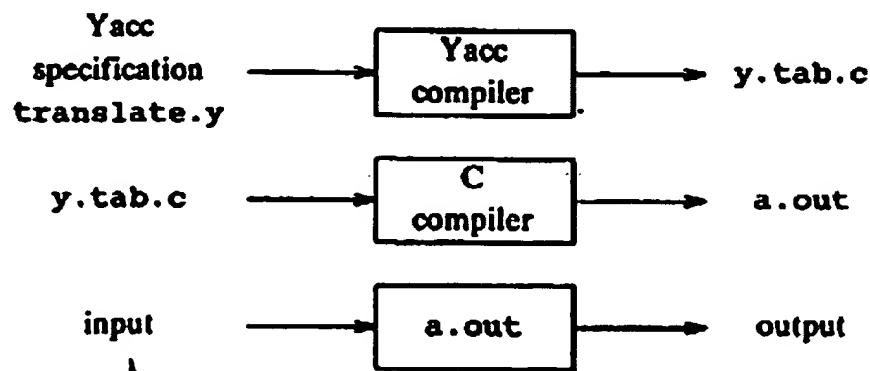


Fig. 4.55. Creating an input/output translator with Yacc.

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Note that the grammar is represented as the “Yacc specification” and the parser is represented as “a.out”. It is also noted that Applicant’s originally filed specification also describes this “well known parser generator” in paragraph 2 on page 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Aho’s teaching of a parser generator with Jennings parser. One of ordinary skill would have been motivated to use a well known tool to facilitate the construction of a parser in order to determine if source code is syntactically well formed (See Aho page 159, bullet two, and the 1st paragraph in section 4.9 on page 257).

As Per claim 2, the rejection of claim 1 is incorporated and further Jennings teaches:

“wherein said markup-language stream drives a markup-language-based browser application, and wherein the scanning step includes scanning the DOM generated by a browser that displays that application.” (E.g. see col. 7:35-52).

As Per claim 3, the rejection of claim 1 is incorporated and further Jennings teaches: “wherein the scanning step includes identifying elements of the DOM by traversal thereof.” (E.g. see FIG. 16 and associated text, e.g. see col. 7:53-57).

As Per claim 4, the rejection of claim 3 is incorporated and further Jennings teaches: “wherein the grammar is application-specific.” (E.g. see col. 7:53-65).

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As Per claim 5, the rejection of claim 3 is incorporated and further Jennings teaches: “wherein the scanning step includes generating one or more tokens for each parsed DOM element.” (E.g. see col. 7: 7:42-45).

As Per claim 6, the rejection of claim 3 is incorporated and further Jennings teaches: “wherein scanning step includes mapping DOM elements to tokens.” (E.g. see col. 7:35-52).

As Per claim 7, the rejection of claim 1 is incorporated and further Jennings teaches: “wherein the parser parses the tokens according to the grammar to identify and distinguish among UI objects in the markup-language stream.” (E.g. see col. 7:53-65).

As Per claim 8, the rejection of claim 7 is incorporated and further Jennings teaches: “wherein said UI objects comprise user input fields (E.g. see col. 7:31-32, text entry and see FIG. 15, block “Password” and associated text), text fields (E.g. see col. 7:31-32, text entry and see FIG. 15, block “Text” and associated text), metatags (E.g. see FIG. 4 and associated text, e.g. see col. 5:47-50, and col. 7:45-50), unprintable markup-language (E.g. see FIG. 15, block “Hidden” and associated text), and in-line images (E.g. col. 7:35-40 and see FIG. 15, block “Image” and associated text).”

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As Per claim 9, the rejection of claim 1 is incorporated and further Jennings teaches: “wherein the scanning and parsing steps are adapted to identify UI objects that correspond to elements displayed in the markup-language application.” (E.g. see FIG. 16 and associated text, e.g. see col. 7:35-52).

As Per claim 10, the rejection of claim 9 is incorporated and further Jennings teaches: “wherein said parser groups the tokens into syntactic structures that identify items displayed by the markup-language application.” (E.g. see col. 7:20-25).

As Per claim 11, the rejection of claim 9 is incorporated and further Jennings teaches: “wherein said step of scanning can include identifying similarly formatted markup-language elements based on their markup-language attributes such as classname, font size, style, tag color, and size.” (E.g. see col. 5:17-29, style sheet).

As Per claim 12, the rejection of claim 9 is incorporated and further Jennings teaches: “wherein said objects comprise name (E.g. see col. 6:1-3), content (E.g. see col. 6:1-3, value), shape (E.g. see col. 5:64), location (E.g. see col. 6:3-5), and properties (E.g. see FIG. 4 and associated text).”

In regard to claim 13, the above rejection of claim 1 is incorporated. All further limitations have been addressed in the above rejection of claim 1.

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In regard to claim 16, the above rejection of claim 1 is incorporated. Jennings does not expressly disclose a LALR(1) parser. However, Aho teaches that Yacc is a LALR parser. See paragraph 1 in section 4.9 on page 257.

In regard to claim 17, the above rejection of claim 1 is incorporated. Jennings does not expressly disclose a LR(1) parser. However, Aho teaches that Yacc is a LR parser. See paragraph 1 on page 216.

As Per claim 18, the rejection of claim 1 is incorporated and further Jennings teaches: "wherein the markup language is any of HTML," (E.g. see col. 7:16-20).

As Per Claim 19, Jennings discloses a digital data processing system (see FIG. 1). All further limitations have been addressed in the above rejection of claim 1.

As Per claim 20, the rejection of claim 19 is incorporated and further Jennings teaches: "wherein the list of UI objects corresponds to elements displayed by the markup-language DOM." (E.g. see FIG. 16 and associated text, e.g. see col. 7:53-65).

As Per claim 21, the rejection of claim 20 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 12.

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As Per claim 22, the rejection of claim 19 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 4.

As Per claim 23, the rejection of claim 19 is incorporated and further Jennings teaches:

“wherein said tokens are interpreted according to the grammar to identify and distinguish among UI objects of a markup-language application's display.” (E.g. see FIG. 16 and associated text, e.g. see col. 7:35-65).

As Per claim 24, the rejection of claim 19 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 8.

As Per claim 25, the rejection of claim 19 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 18.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-F 6:00 - 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TUAN DAM
SUPERVISORY PATENT EXAMINER

jdr